

PATENT CLAIMS

1. Telecommunication systems for wireless, at least partially asynchronous telecommunication networks, particularly DECT systems for at least partially asynchronous DECT networks, comprising base stations (BS, RFP, DIFS) and mobile parts (MT, RPP, DIPS) that are connectible by the wireless transmission of messages, characterized in that first messages (N1) having first information can be at least temporarily sent at least from one part of the first base stations (BS1, RFP1, DIFS1) that are synchronous with first mobile parts (MT1, RPP1, DIPS1) and in whose proximity respectively at least one second base station (BS2, RFP2, DIFS2) that is/are respectively asynchronous relative to the first base stations (BS1, RFP1, DIFS1) is arranged, whereby the information indicate that the first base stations (BS1, RFP1, DIFS1) are respectively surrounded by at least one of the second base station [sic] (BS2, RFP2, DIFS2).
2. Telecommunication systems according to claim 1, characterized in that the synchronism between the first base stations (BS1, RFP1, DIFS1) and the first mobile parts (MT1, RPP1, DIPS1) exists in the idle locked mode of the first mobile parts (MT1, RPP1, DIPS1).
3. Telecommunication systems according to claim 1 or 2, characterized in that the synchronism between the first base stations (BS1, RFP1, DIFS1) and the first mobile parts (MT1, RPP1, DIPS1) exists in the active locked mode of the first mobile parts (MT1, RPP1, DIPS1).
4. Telecommunication systems according to one of the claims 1 through 3, characterized in that the telecommunication systems (TKS1...TKS7) are TDMA-based telecommunication systems.

5. Telecommunication systems according to claim 4, characterized in that the first base stations (BS1, RFP1, DISF1) are respectively asynchronous relative to the second base station or stations (BS2, RFP2, DIFS2) in view of the bit, time slot and/or time frame synchronism.

5 6. Telecommunication systems according to one of the claims 1 through 5, characterized in that the part of the first base stations (BS1, RFP1, DIFS1) regularly sends the first messages (N1) with the first information.

7. Telecommunication systems according to one of the claims 1 through 6, characterized in that the part of the first base stations (BS1, RFP1, DIFS1) 10 automatically sends the first messages (N1) with the first information.

8. Telecommunication systems according to one of the claims 1 through 6, characterized in that the part of the first base stations (BS1, RFP1, DIFS1) is initiated by the network side to send the first messages (N1) with the first information.

15 9. Telecommunication systems according to one of the claims 1 through 8, characterized in that the first mobile parts (MT1, RPP1, DIPS1) - after receiving the first messages - become asynchronous relative to the first base stations (BS1, RFP1, DIFS1) for a predetermined time span dependent on mobile part location-specific reception criteria in order to search for second base stations (BS2, RFP2, DIFS2).

20 10. Telecommunication systems according to claim 4 and 9, characterized in that the first mobile parts (MT1, RPP1, DIPS1) are respectively asynchronous relative to the first base stations (BS1, RFP1, DIFS1) in view of the bit, time slot and/or time frame synchronism.

11. Telecommunication systems according to claim 9, characterized in that the first mobile parts (MT1, RPP1, DIPS1) interrupt the search for a predetermined time span after they have searched for the second base stations (BS2, RFP2, DIFS2).

5 12. Telecommunication systems according to claim 11, characterized in that the first mobile parts (MT1, RPP1, DIPS1) comprise time counters (ZZ) for acquiring the time span.

10 13. Telecommunication systems according to claim 12, characterized in that the first base stations (BS1, RFP1, DIFS1) load the time counters (ZZ) of the first mobile parts (MT1, RPP1, DIPS1) with the predetermined time span as start value on the basis of the wireless transmission of the messages.

15 14. Telecommunication systems according to claim 13, characterized in that the first base stations (BS1, RFP1, DIFS1) comprise memories (SP) wherein the time span are [sic] respectively stored.

15. Communication systems according to claim 13 or 14, characterized in that the time span can be delivered to the first base stations (BS1, RFP1, DIFS1) from the network side.

20 16. Telecommunication systems according to one of the claims 9 through 15 and according to claim 4, characterized in that the time span is a multiple of the time slot or time frame.

17. Telecommunication systems according to one of the claims 9 through 16, characterized in that the first mobile parts (MT1, RPP1, DIPS1) repeat the

search procedures at regular time intervals given unsuccessful attempts to seek the second base stations (BS2, RFP2, DIFS2).

18. Telecommunication systems according to one of the claims 9 through 17, characterized in that the mobile location-specific reception criteria are the downward transgression of mobile part location-specific reception field strength thresholds.

19. Telecommunication systems according to claim 18, characterized in that the mobile part location-specific reception field strength thresholds and threshold for initiation of inter-cell handover are of the same size.

20. Telecommunication systems for wireless, at least partially asynchronous telecommunication networks, particularly DECT systems for at least partially asynchronous DECT networks, comprising base stations (BS, RFP, DIFS) and mobile parts (MT, RPP, DIPS) that are connectible by the wireless transmission of messages, characterized in that first mobile parts (MT1, RPP1, DIPS1) in telecommunication networks (TKN) having only asynchronous base stations (BS2, RFP2, DIFS2) can be set such on the basis of operating procedures that the mobile parts switch into a "free run scan mode" before the mobile parts (MT1, RPP1, DIPS1) break off contact to the base stations (BS2, RFP2, DIFS2) without losing synchronization in order to localize neighboring, asynchronous base stations or station and to allocate thereto.